

Petroleum Geologist  
Reservoir Engineering

John C. Byers

Fourth Floor  
Great Plains Life Bldg.  
Lubbock, Texas

Telephone  
POrter 2-1004

April 30, 1965

Oil & Gas Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico

Re: Cone Jalmat Yates Pool Unit  
Water Flood Expansion

Gentlemen:

The Cone Jalmat Yates Pool Unit was authorized for water flood operations through Commission Orders No. R-2495 dated June 11, 1963. An expansion of this water flood operation was authorized through administrative order No. WFX-180 dated September 22, 1964.

Water flood operations within the northern portion of the subject Unit has been responsible for increasing Unit production from an average 4,000 Bbl per month prior to water injection to more than 13,000 Bbl per month during March 1965. The degree of response is reflected more completely through production curves attached hereto and well test data offered in the form of Your Form C-116.

The Working Interest Owners of the subject Unit hereby request that administrative approval be granted for expansion of the water flood program for this unit. The proposed expansion for which this request is made will involve the conversion of 6 wells to water injection service. This expansion will increase Unit area under water flood from 640 acres to 1160 acres out of the 1600 acre unit area.

Water requirement for this expansion will be derived from Santa Rosa sand water supply well. This is the same source of water supply employed in the present project.

Water injection into the Yates sand section will average 400 Bbl water per day per injection well at well head pressure limited to a maximum 1300 psig.

To accomplish this expansion the Working Interest Owners request approval for conversion of Unit wells 5-2, 5-3, 6-2, 6-4, 7-2, and 8-2 to water injection service.

April 30, 1965

Oil & Gas Conservation Commission Re: Cone Jalmat Yates Pool Unit  
State of New Mexico Water Flood Expansion

Attached hereto, please find Commission forms C-102 relative to each of the wells set out above through which permission for conversion to water injection is requested. Also enclosed are well completion diagrams for each well reflecting condition of the well and plans for completion as water injection service wells.

For your convenience we have enclosed maps of the Unit area into which this program will be expanded.

A duplicate copy of this application along with all exhibits pertinent thereto has been supplied to the State Engineer's Office in Santa Fe. Also a copy of this application along with appropriate exhibits has been supplied to Cities Service Oil Company. This proposed water flood expansion area is offset to the west by British-American Oil Producing Company's Cone Jalmat Yates Pool Unit which is under water flood and fully developed, is being conducted in cooperation with water flood operations in this unit. Cities Service Oil Company has properties offsetting this Unit to the East and we have requested them to supply you with Waiver of Operations to this proposed expansion.

Your consideration of this request is appreciated and if additional information is required we will be pleased to furnish what we can.

Yours very truly,



JCB:mc  
Enclosures

CC: Oil & Gas Conservation Office  
Hobbs, New Mexico

J. R. Cone

L. O. Storm

State Engineer  
Santa Fe, New Mexico



STATE OF NEW MEXICO  
STATE ENGINEER OFFICE  
SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

May 26, 1965

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, N. M.

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, N. M.

Dear Mr. Porter:

Reference is made to the application of J. R. Cone submitted by John C. Byers dated April 30, 1965 which seeks administrative approval for the conversion of the following six wells in the Cone Jalmet Yates Pool Unit to water injection:

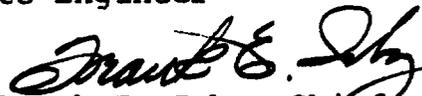
Unit Wells 5-2  
5-3  
6-2  
6-4  
7-2  
8-2

This office offers no objection to the granting of this application provided the injection into each well will be down tubing under a packer set well below the top of the cement surrounding the production casing and the annular space between the tubing and casing is loaded with inhibited injection fluid as proposed in the application.

FEI/ma  
cc-J. R. Cone  
John C. Byers  
F. H. Hennighausen

Very truly yours,

S. E. Reynolds  
State Engineer

By:   
Frank E. Irby, Chief  
Water Rights Div.

John C. Byers

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Petroleum Geologist  
Reservoir Engineering

April 30, 1965

*W 1 - 206*

Oil & Gas Conservation Commission  
State of New Mexico  
P. O. Box 2088  
Santa Fe, New Mexico

*New May*

Attention: J. E. Kapteina

Dear Sir:

*6-20-65*

We return herewith triplicate copies of an application on the part of J. R. Cone, requesting administrative approval of Water Flood Expansion of Cone Jalmat Yates Pool Unit, Lea County, New Mexico.

We believe this information to conform to requirements of Article 701-B.

If additional information is required please call upon us.

Yours very truly,

  
John C. Byers

JCB:mc

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR J. R. Cone POOL Jalmat Yates  
 ADDRESS Box 871 Lubbock, Texas MONTH OF May, 1964  
 SCHEDULED TEST X COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)

(See Instructions on Reverse Side)

Page 2 of routine test of wells in a water flooded project.

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbl.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbl.	Oil Bbl.	Gas MCF	
Cone Jalmat Yates Pool Unit	4-1	3/31	P		24	3	2.2	7.9	29.6	3,750
	5-1	2/18	P		24	16	1.0	4.0	11.6	2,905
	5-3	2/19	P		24	5	0.0	3.0	13.8	4,600
	5-4	2/20	P		24	4	0.5	4.4	9.9	2,250
	6-1		S.I.							
	6-2	2/21	F		24	8	0.0	6.8	83.0	12,212
	6-3	2/22	F		24	8	0.0	7.0	31.6	4,521
	6-4	2/23	F		24	8	0.0	4.1	18.0	4,403
	6-5	2/24	F		24	7	0.0	4.0	25.5	6,375
	7-1	2/8	F		24	8	1.4	2.8	22.2	7,933
	7-2	2/10	P		24	8	0.0	7.5	30.8	4,113
	7-3	2/14	F		24	8	2.8	8.2	7.4	897
	7-4	2/12	P		24	12	0.0	1.0	8.4	8,400

Cont. page 3

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date \_\_\_\_\_

*J. R. Cone*

Title \_\_\_\_\_

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR J. R. Cone POOL Jalmat Yates  
 ADDRESS Box 871 Lubbock, Texas MONTH OF May, 1964  
 SCHEDULED TEST  COMPLETION TEST \_\_\_\_\_ SPECIAL TEST \_\_\_\_\_ (Check One)

(See Instructions on Reverse Side)

Page 3 of routine test of wells in a water flood project.

Lease	Well No.	Date of Test	Producing Method	Choke Size	Test Hours	Daily Allowable Bbl.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbl.	Oil Bbl.	Gas MCF	
Cone Jalmat Yates Pool Unit	8-1	3/22	P		24	8	0	9.6	22.7	2,361
	8-2	3/23	P		24	5	4	7.2	3.7	514
	8-3	3/24	P		24	3	1	2.0	15.4	7,677
	8-4	3/25	P		24	3	0	4.0	5.0	1,250
	10-1	2/16	P		24	3	0	1.9	Nil	Nil
<b>ILLEGIBLE</b>							265	173.6	877.1	4,800.1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date May 5, 1964

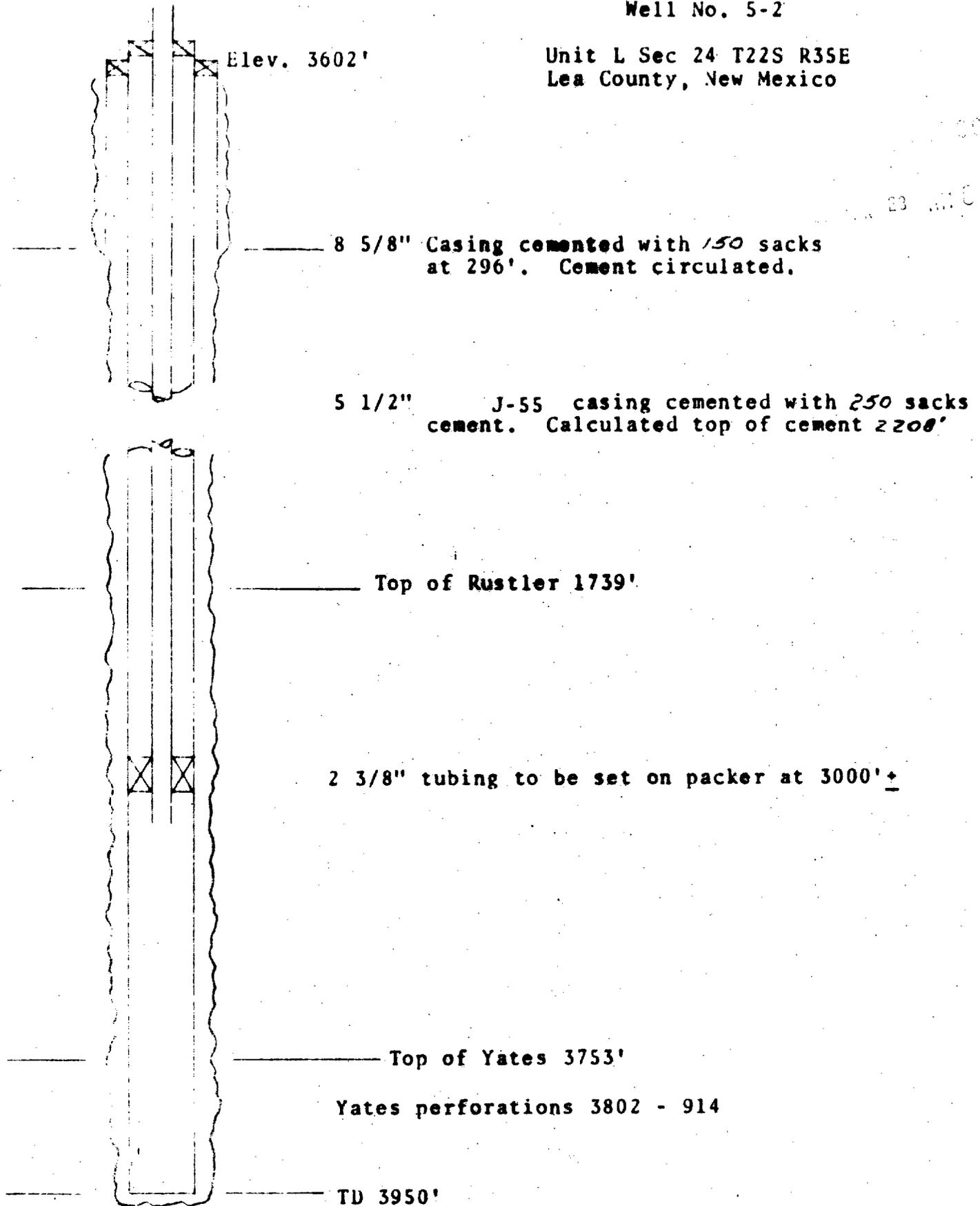
J. R. Cone  
 By John R. Payne  
 Engineer

Title

LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE

CONE JALMAT YATES POOL UNIT  
Well No. 5-2

Unit L Sec 24 T22S R35E  
Lea County, New Mexico

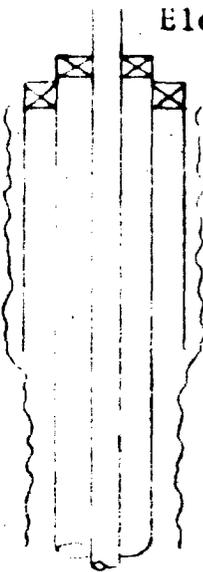


5 1/2" casing seat 3950'

CONE JALMAT YATES POOL UNIT  
Well No. 5-3

Unit N Sec 24 T22S R35E  
Lea County, New Mexico

Elev. 3592'



8 5/8" Casing cemented with 150 sacks  
at 306'. Cement circulated.

5 1/2" J-55 casing cemented with 250 sacks  
cement. Calculated top of cement 2253'

Top of Rustler 1685'

2 3/8" tubing to be set on packer at 3000'+

Top of Yates 3696'

Yates perforations 3794 - 824

TD 3840'

5 1/2" casing seat 3840'

CONE JALMAT YATES POOL UNIT  
Well No. 6-2

Elev. 3592'

Unit J Sec 24 T22S R35E  
Lea County, New Mexico

8 5/8" Casing cemented with 300 sacks  
at 310'. Cement circulated.

5 1/2" J-55 casing cemented with 400 sacks  
cement. Calculated top of cement 730'

Top of Rustler 1665'

2 3/8" tubing to be set on packer at 3000'±

Top of Yates 3646'

Yates perforations 3784 - 812

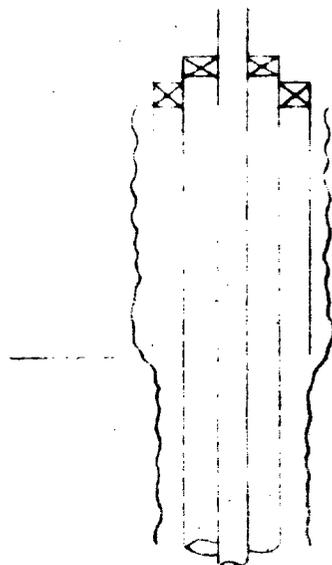
TD 3900'

5 1/2" casing seat 3900'

CONE JALMAT YATES POOL UNIT  
Well No. 6-4

Elev. 3586'

Unit P Sec 24 T22S R35E  
Lea County, New Mexico



8 5/8" Casing cemented with 300 sacks  
at 309'. Cement circulated.

5 1/2" J-55 casing cemented with 450 sacks  
cement. Calculated top of cement 758'

Top of Rustler 1640'

2 3/8" tubing to be set on packer at 3000'±

Top of Yates 3616'

Yates perforations 3763 - 778

TD 3850'

5 1/2" casing seat 3850'

CONE JALMAT YATES POOL UNIT  
Well No. 7-2

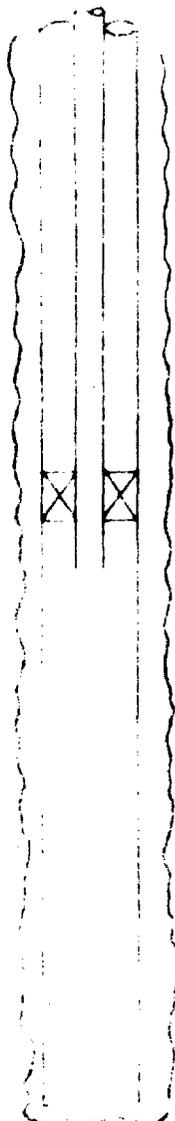
Unit B Sec 25 T22S R35E  
Lea County, New Mexico

Elev. 3561'



8 5/8" Casing cemented with 300 sacks  
at 307'. Cement circulated.

5 1/2" J-55 casing cemented with 450 sacks  
cement. Calculated top of cement 796'



Top of Rustler 1648'

2 3/8" tubing to be set on packer at 3000'+

Top of Yates 3646'

Yates perforations 3752 - 815

TD 3900'

5 1/2" casing seat 3900'

CONE JALMAT YATES POOL UNIT  
Well No. 8-2

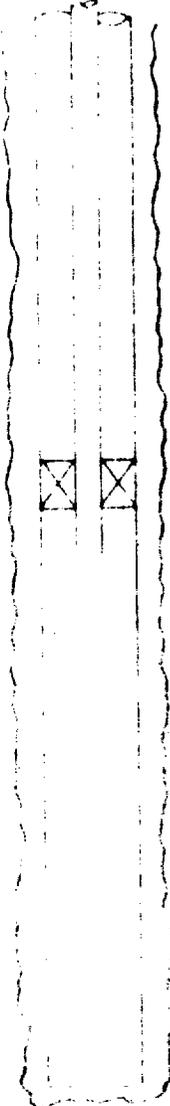
Unit D Sec 25 T22S R35E  
Lea County, New Mexico

Elev. 3577'



8 5/8" Casing cemented with 325 sacks  
at 323'. Cement circulated.

5 1/2" J-55 casing cemented with 1070 sacks  
cement. Calculated top of cement surface.



Top of Rustler 1708'

2 3/8" tubing to be set on packer at 3000'+

Top of Yates 3744'

Yates perforations 3852 - 862

TD 3964'

5 1/2" casing seat 3964'





STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS  
STATE ENGINEER

May 26, 1965

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, N. M.

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, N. M.

Dear Mr. Porter:

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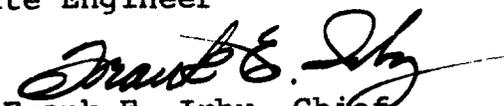
Unit Wells 5-2  
5-3  
6-2  
6-4  
7-2  
8-2

This office offers no objection to the granting of this application provided the injection into each well will be down tubing under a packer set well below the top of the cement surrounding the production casing and the annular space between the tubing and casing is loaded with inhibited injection fluid as proposed in the application.

FEI/ma  
cc-J. R. Cone  
John C. Byers  
F. H. Hennighausen

Very truly yours,

S. E. Reynolds  
State Engineer

By:   
Frank E. Irby, Chief  
Water Rights Div.